

The opinion in support of the decision being entered today was **not** written for publication in a law journal and is **not** binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PHILIPPE STARON

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Appeal No. 1997-1188  
Application No. 08/035,969

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HEARD: September 13, 2001

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Before COHEN, NASE, and BAHR, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 17 to 38, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a seismic exploration system (claims 17 to 29) and a method of seismic exploration (claims 30 to 38). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Miller	3,863,200	Jan. 28, 1975
Read et al. (Read)	4,885,724	Dec. 5, 1989
McNatt	EP 0226366	June 24, 1987

Claims 17 to 38 stand rejected under 35 U.S.C. § 103 as being unpatentable over Read or McNatt when taken with Miller.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the answer (Paper No. 20, mailed August 27, 1996) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 19, filed May 7, 1996) and reply brief (Paper No. 28, filed February 8, 2001) for the appellant's arguments thereagainst.

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OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 17 to 38 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting **evidence** that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d

1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Evidence of a suggestion, teaching, or motivation to modify a reference may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg., Inc. v. SGS Importers Int'l., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), cert. denied, 117 S. Ct. 80 (1996), although "the suggestion more often comes from the teachings of the pertinent references," In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., C.R. Bard Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 1804 (1999). A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not "evidence." See

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

The teachings of the applied prior art relied upon by the examiner are set forth on pages 4-5 of the answer. After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of Read and McNatt and claim 17, it is our opinion that the differences are (1) a controlled element, coupled to each of the seismic sensors, for modifying the seismic signal produced by each seismic sensor;

(2) a control, coupled to each controlled element, for controlling the modifying of the seismic signal produced by at least one set of a plurality of seismic sensors; and (3) at least one combining element, each combining element being coupled to an output of each of a plurality of the controlled elements coupled to one of the plurality of sets of seismic

sensors for combining the seismic signals to produce at least one seismic trace.

Based on our assessment of Read and McNatt and claim 30, it is our opinion that the differences are (1) each seismic trace being produced with a seismic receiver by combining a selected group of received seismic signals; and (2) the combining of each selected group of received seismic signals to produce each of the seismic traces is controlled by transmission of control signals from the recording and control station to a plurality of controlled elements to modify each selected group to change the received seismic signals in each selected group or to modify which of the received seismic signals in each selected group are combined to produce each seismic trace.

The examiner determined (answer, p. 7) that it would have been obvious to one skilled in the art to combine the teachings of Miller with either Read or McNatt. While we agree with that determination, we fail to see how the modification of either Read or McNatt based on the cited

teachings of Miller arrives at the claimed invention. In that regard, we note that the examiner never determined that the actual differences between the claimed subject matter and Read or McNatt would have been obvious at the time the invention was made to a person of ordinary skill in the art. In the rejection before us in this appeal, the examiner has not determined that the applied prior art teaches or suggests a combining element being coupled to an output of each of a plurality of the controlled elements coupled to one of the plurality of sets of seismic sensors for combining the seismic signals to produce at least one seismic trace as set forth in claim 17 or the combining of each selected group of received seismic signals to produce each seismic trace as recited in claim 30.

Thus, in the rejection before us in this appeal, the examiner has not established a prima facie case of



obviousness.<sup>1</sup> Accordingly, the decision of the examiner to reject claims 17 to 38 under 35 U.S.C. § 103 is reversed.

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<sup>1</sup> If the examiner is aware that it was known in the prior art to combine the seismic signals from the set of seismic sensors of each seismic receiver to produce a seismic trace, the examiner should cite a reference in support thereof (see for example the references referred to in column 3, lines 33-52, of Miller) and consider whether the pending claims are patentable under 35 U.S.C. § 103 over those references when considered with the prior art applied in the rejection before us in this appeal.

CONCLUSION

To summarize, the decision of the examiner to reject  
claims 17 to 38 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
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	)	
	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

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